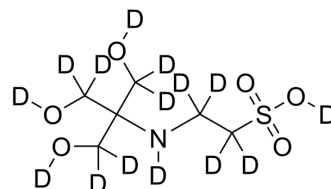


## TES-d<sub>15</sub>

Cat. No.:	HY-23430S
CAS No.:	1219794-63-4
Molecular Formula:	C <sub>6</sub> D <sub>15</sub> NO <sub>6</sub> S
Molecular Weight:	244.34
Target:	Isotope-Labeled Compounds
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	TES-d <sub>15</sub> is the deuterium labeled TES[1]. TES is a buffering agent (pKa=7.550 at 25°C). TES is one of the Good's buffers, the buffer capacity ranging pH 6.8-8.2[2][3].
<b>In Vitro</b>	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;53(2):211-216.
- [2]. N E Good, et al. Hydrogen ion buffers for biological research. *Biochemistry*. 1966 Feb;5(2):467-77.
- [3]. A Itagaki, et al. Tes and HEPES buffers in mammalian cell cultures and viral studies: problem of carbon dioxide requirement. *Exp Cell Res*. 1974 Feb83(2):351-61.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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